

MEDICINE BRANCH  
MEDICAL PRACTICE DIVISION  
PROFESSIONAL SERVICE  
S. G. O.



SECTION  
7

RESTRICTED

ASFG 91-10 APR 46  
DATE 24 APR 46 *C. S. Juliano*  
CHARLES S. JULIANO, Capt., MAC  
Asst. Security Officer, 3007

6

800... 720-1

# HEALTH

ARMY  
MEDICAL  
DEC 20 1946  
LIBRARY



## MONTHLY PROGRESS REPORT

**SECRET**

64

DATA AS OF 30 JUNE 1943

ARMY SERVICE FORCES, WAR DEPARTMENT

~~SECRET~~

RESTRICTED

no 15





**THIS DOCUMENT CONTAINS  
INFORMATION AFFECTING THE  
NATIONAL DEFENSE OF THE  
UNITED STATES WITHIN THE  
MEANING OF THE ESPIONAGE  
ACT, 50 U. S. C., 31 AND 32, AS  
AMENDED. ITS TRANSMISSION  
OR THE REVELATION OF ITS  
CONTENTS IN ANY MANNER  
TO AN UNAUTHORIZED PERSON  
IS PROHIBITED BY LAW.**

**OFFICE OF THE SURGEON GENERAL  
HEADQUARTERS, ARMY SERVICE FORCES, WAR DEPARTMENT**





# HEALTH

## TABLE OF CONTENTS

### PART I

#### DISEASE AND INJURY

Noneffective Rates	
Continental U. S. . . . .	1
Overseas by Cause . . . . .	2
Disease and Injury	
U. S. and Overseas. . . . .	4
Dengue. . . . .	5
Malaria	
Distribution by Theaters. . . . .	6
Noneffective Rates Overseas . . . . .	7
In the South and Southwest Pacific. . . . .	8
Diarrhea and Dysentery. . . . .	9
Neuropsychiatric Disease. . . . .	10
Venereal Disease. . . . .	12
Dental Infection and Injury . . . . .	13

### PART II

#### HOSPITALIZATION

Utilization and Requirements for Beds	
Named General Hospitals . . . . .	14
Station Hospitals	
Continental U. S. . . . .	15
By Service Command. . . . .	16
Fixed Hospitals Overseas. . . . .	18
Evacuation of Patients from Overseas. . . . .	19

### PART III

#### MORTALITY

Death Rates from Nonbattle Causes . . . . .	20
Death Rates from Battle Causes. . . . .	21

### PART IV

#### MISCELLANEOUS

Nutritional Evaluation of the Field Ration. . . . .	22
Induction Rates by Age and Color. . . . .	23







RESTRICTED

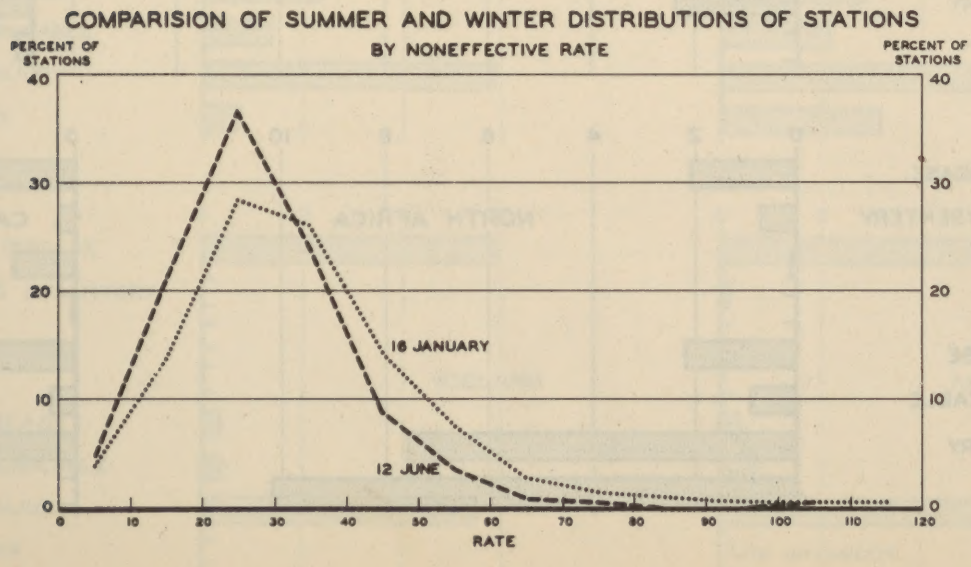
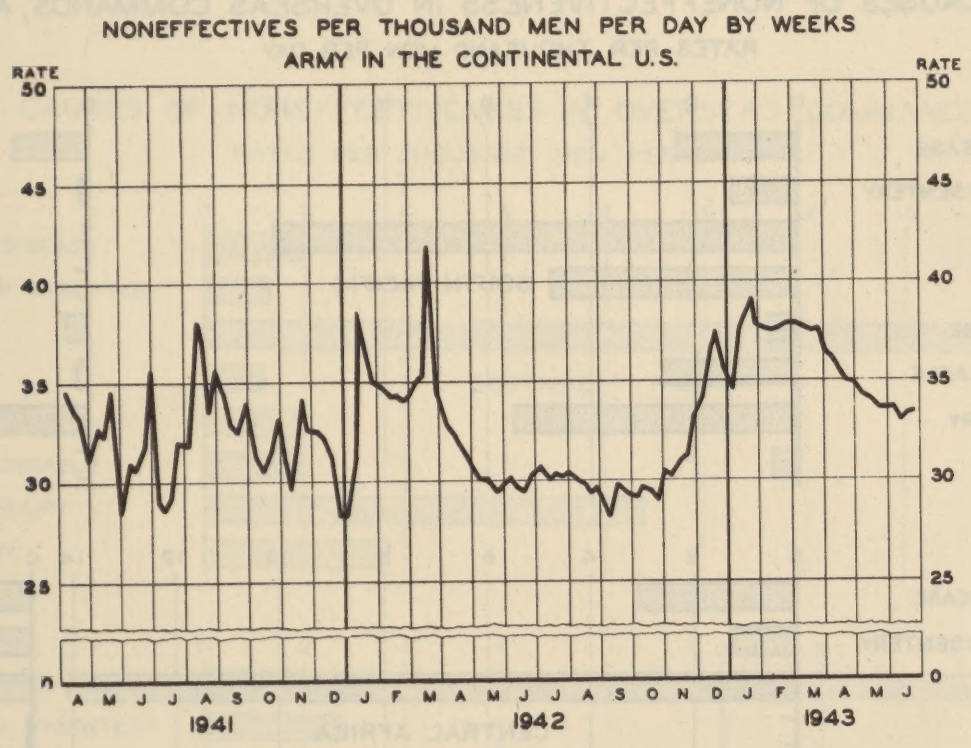
CONFIDENTIAL

DISEASE AND INJURY

NONEFFECTIVE RATES, CONTINENTAL U. S.

There was only a slight change in the average daily noneffective rate during June. From 33.6 for 29 May, it declined to only 33.2 for 25 June, the latest date for which information is available. This level is considerably higher than that which prevailed during June 1942, and it remains to be seen how much lower the rate will go during the summer months.

The chart at the bottom of the page shows the variation among stations with respect to noneffective rate on 16 January and on 12 June 1943. The distributions are limited to posts, camps, and stations reporting an average strength of 4,000 or more during the weeks ending on those dates. During the winter period fewer of the stations were in the favorable range of less than 30 per thousand, and more were well beyond this point. As the average noneffective rate declined, however, the extreme cases became less numerous and more of the camps reported an average experience.





RESTRICTED

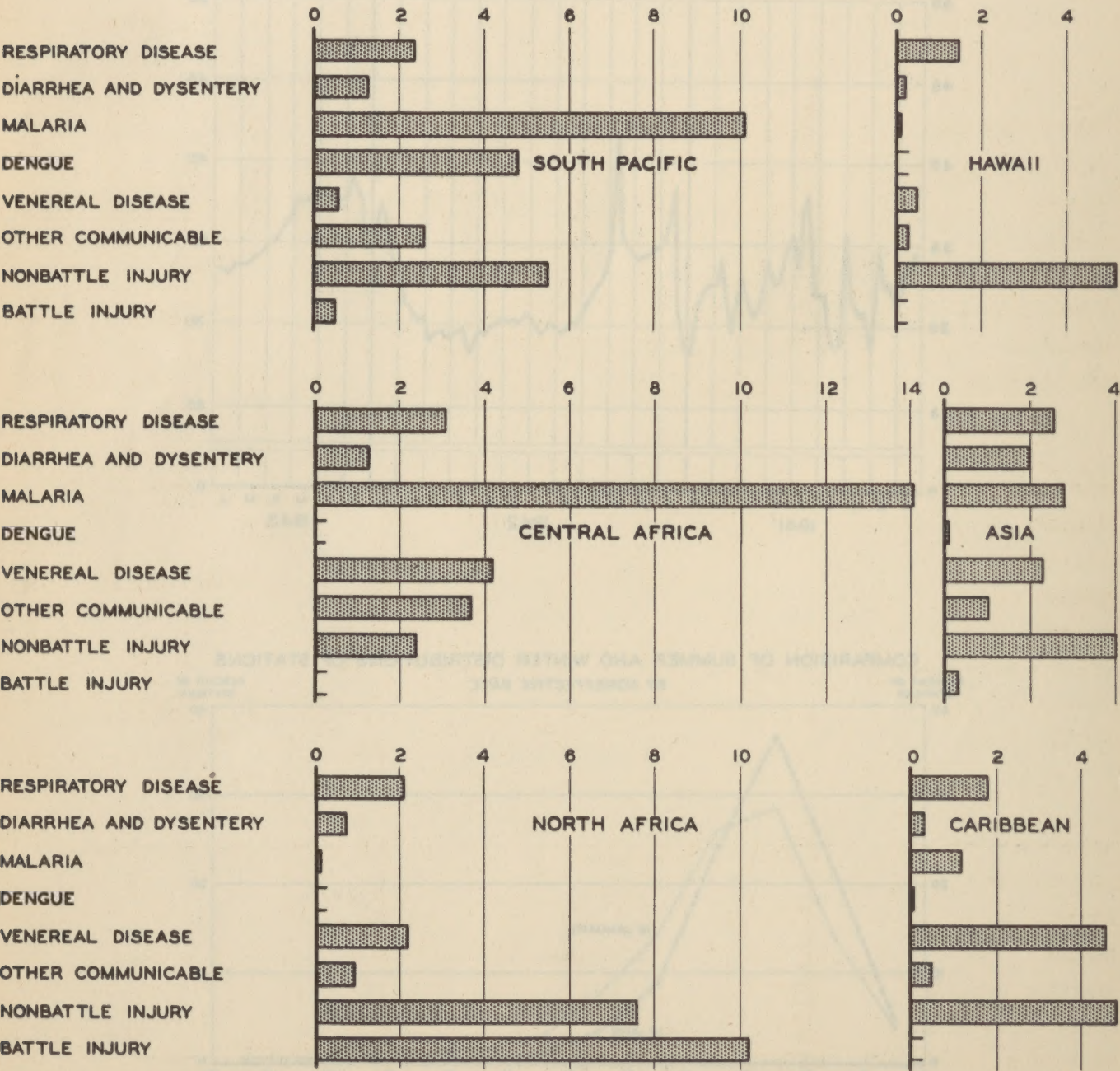
CONFIDENTIAL

# DISEASE AND INJURY

## CAUSES OF NONEFFECTIVENESS OVERSEAS

The extensive geographical dispersion of U. S. Army forces overseas has placed them in a wide variety of climates ranging from tropical to arctic in character. There are corresponding variations in the disease picture, and the incidence of battle and nonbattle injury also differs widely by reason of geography, terrain, composition of forces, weather, equipment, and tactical situation. In consequence, the noneffective rates of each theater or other command tend to have a characteristic pattern when subdivided according to major causes of noneffectiveness. The charts below and on the following page reveal something of the distinctive character of noneffectiveness in each area, insofar as the experience of April 1943 may be relied upon for this purpose. Seasonal changes and alterations in the combat situation would be expected to modify the relative importance of the individual rates in some areas. Omitted from each panel is that portion of the noneffective rate attributable to noncommunicable diseases, a large segment for which no breakdown is available. It ranges from 9.8 per thousand men per day for Alaska to 36.7 for the South Pacific.

MAJOR CAUSES OF NONEFFECTIVENESS IN OVERSEAS COMMANDS, APRIL  
RATES PER THOUSAND MEN PER DAY





RESTRICTED

# DISEASE AND INJURY

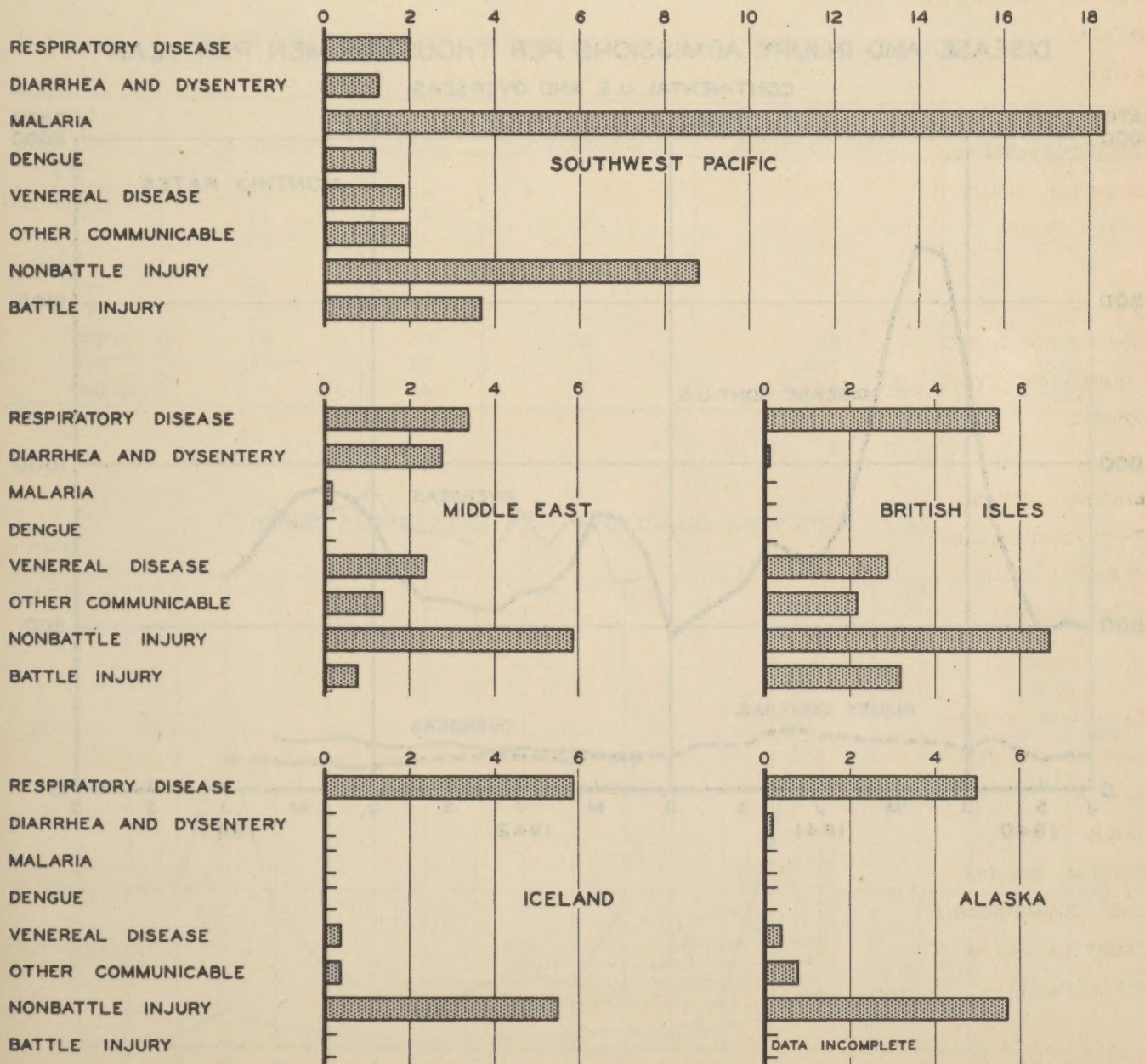
CONFIDENTIAL

## CAUSES OF NONEFFECTIVENESS OVERSEAS (Continued)

In virtually all theaters nonbattle injury makes a large contribution to the noneffective rate. Only in North Africa, the British Isles, and the Southwest Pacific were battle injuries an appreciable factor. In China, India, and Burma malaria was the most important communicable disease during April, but considerable time was lost because of respiratory disease, venereal infection, and diarrhea and dysentery. The pattern of the South Pacific is dominated by malaria, but dengue was also very important. In the Southwest Pacific, the noneffective rate from malaria overshadowed all other communicable diseases, and all injuries as well.

In the British Isles respiratory infection caused more noneffectiveness than did any other communicable disease but venereal infection was relatively important. In North Africa there was little noneffectiveness from disease in comparison with that caused by battle and nonbattle injury during April. In Central Africa malaria took a relatively heavy toll, and venereal disease was next in importance. In the Caribbean, venereal disease was about four times as important a cause of lost time as was malaria, the noneffective rates being 4.6 and 1.2.

MAJOR CAUSES OF NONEFFECTIVENESS IN OVERSEAS COMMANDS, APRIL  
RATES PER THOUSAND MEN PER DAY





RESTRICTED

CONFIDENTIAL

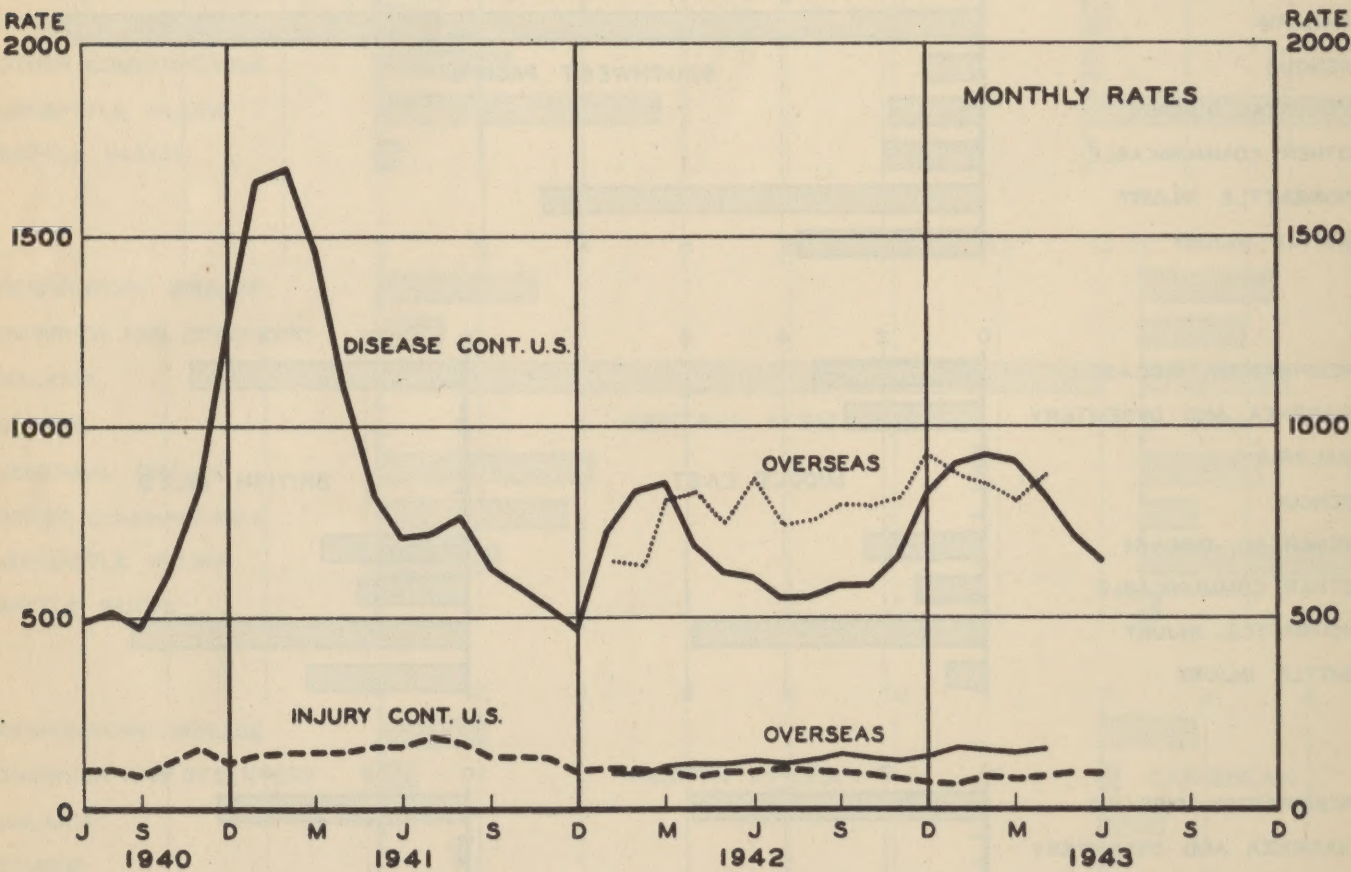
# DISEASE AND INJURY

## DISEASE AND INJURY

The preliminary admission rate for disease among troops in the Continental U. S. continued its seasonal decline during June, reaching a level of about 640 admissions per thousand men per year. The rates for nonbattle injury, also subject to correction, are on a higher level than those which prevailed during the winter months.

In order to compare the experience of troops at home and abroad, there has been added to the chart shown in previous issues the overseas rates for disease and injury. The strength of the Philippine Department has been omitted from the overseas consolidation. Largely because of high morbidity in tropical areas and the incidence of respiratory infection among troops in the British Isles during the past winter, the rates for overseas forces have been somewhat higher than those for the Continental U. S., except during the very peak of the winter respiratory season. The average admission rate for nonbattle injury overseas shows a significant upward trend since the first of 1942, and the present level is almost twice that for troops stationed in the Continental U. S.

DISEASE AND INJURY, ADMISSIONS PER THOUSAND MEN PER YEAR  
CONTINENTAL U.S. AND OVERSEAS





RESTRICTED

CONFIDENTIAL

DISEASE AND INJURY

DENGUE

A nonfatal disease of epidemic potentiality, dengue presents a constant hazard to U. S. Army forces stationed in certain tropical and subtropical regions. It is a virus infection transmitted to man by the bite of infected mosquitoes, usually of the Aedes genus. Already dengue has become an important cause of admission in the South Pacific, largely because of the epidemic incidence on Espiritu Santo.

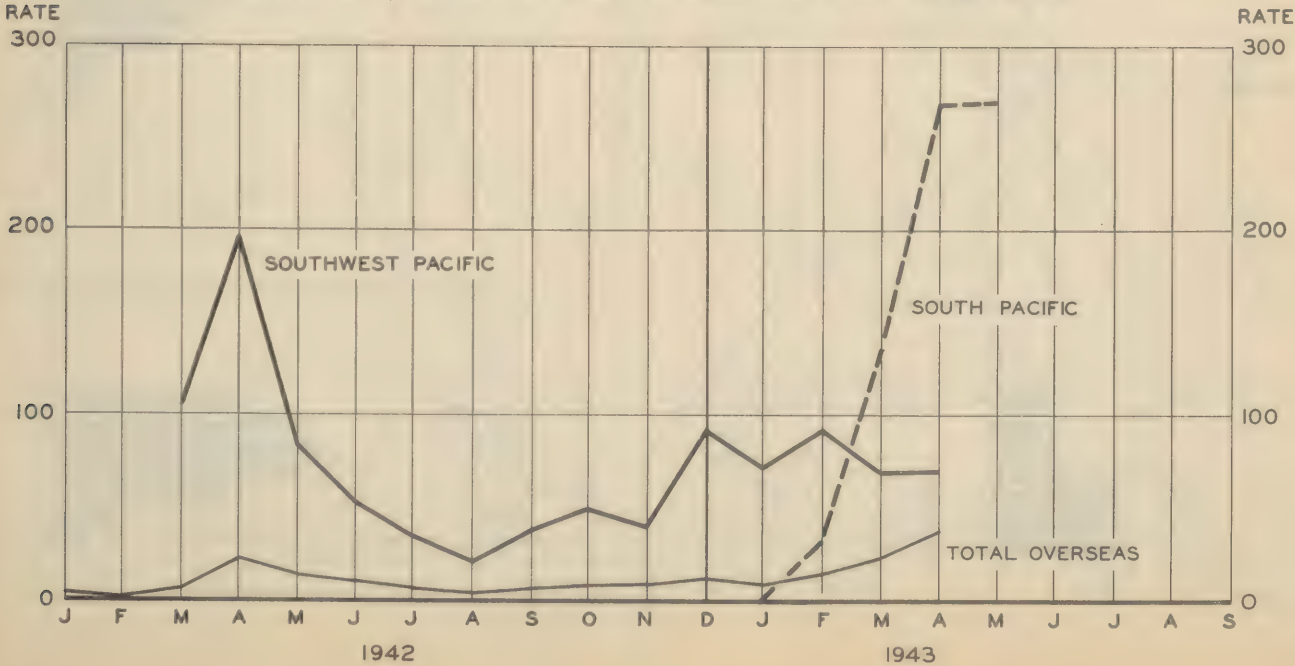
Control measures against the responsible vector, usually the Aedes egypti, are essential for the protection of troops, but become more difficult under combat conditions. The suppressive drugs, quinine and atabrine, so useful in combating malaria, have no counterpart in the fight against dengue. Fortunately, it is a far less serious disease, which runs its course in a short period of time, and carries a negligible risk of mortality.

In 1939 and 1940 the average rates of admission for dengue among white troops in the Philippine Department were 57 and 85 per thousand strength per year. The corresponding noneffective rates were 1.5 and 2.1 per thousand strength per day. Current admission rates for the Southwest Pacific Theater are about of this order, as may be seen from the chart below, but those for the South Pacific are much higher. The epidemic of March-May, 1942, occurred among troops in Northern Australia. The table immediately below gives some additional data on bases, although the rates are preliminary and subject to correction. The experience on Espiritu Santo gives cause for concern, as does that for New Caledonia during April and May. The sanitary reports from Espiritu Santo during the epidemic period have given dengue as the chief cause of noneffectiveness, malaria as second, and respiratory infection third.

DENGUE ADMISSIONS PER THOUSAND MEN PER YEAR, OVERSEAS COMMANDS

Month and Year	New Guinea	South Pacific			
		Fiji	Guadalcanal	Espiritu Santo	New Caledonia
1942					
Oct	172	-	-	-	-
Nov	71	-	-	-	-
Dec	205	-	-	-	-
1943					
Jan	61	-	-	-	-
Feb	88	-	-	-	-
Mar	74	0	20	974	23
Apr	77	11	8	1,407	491
May	-	4	7	1,639	426

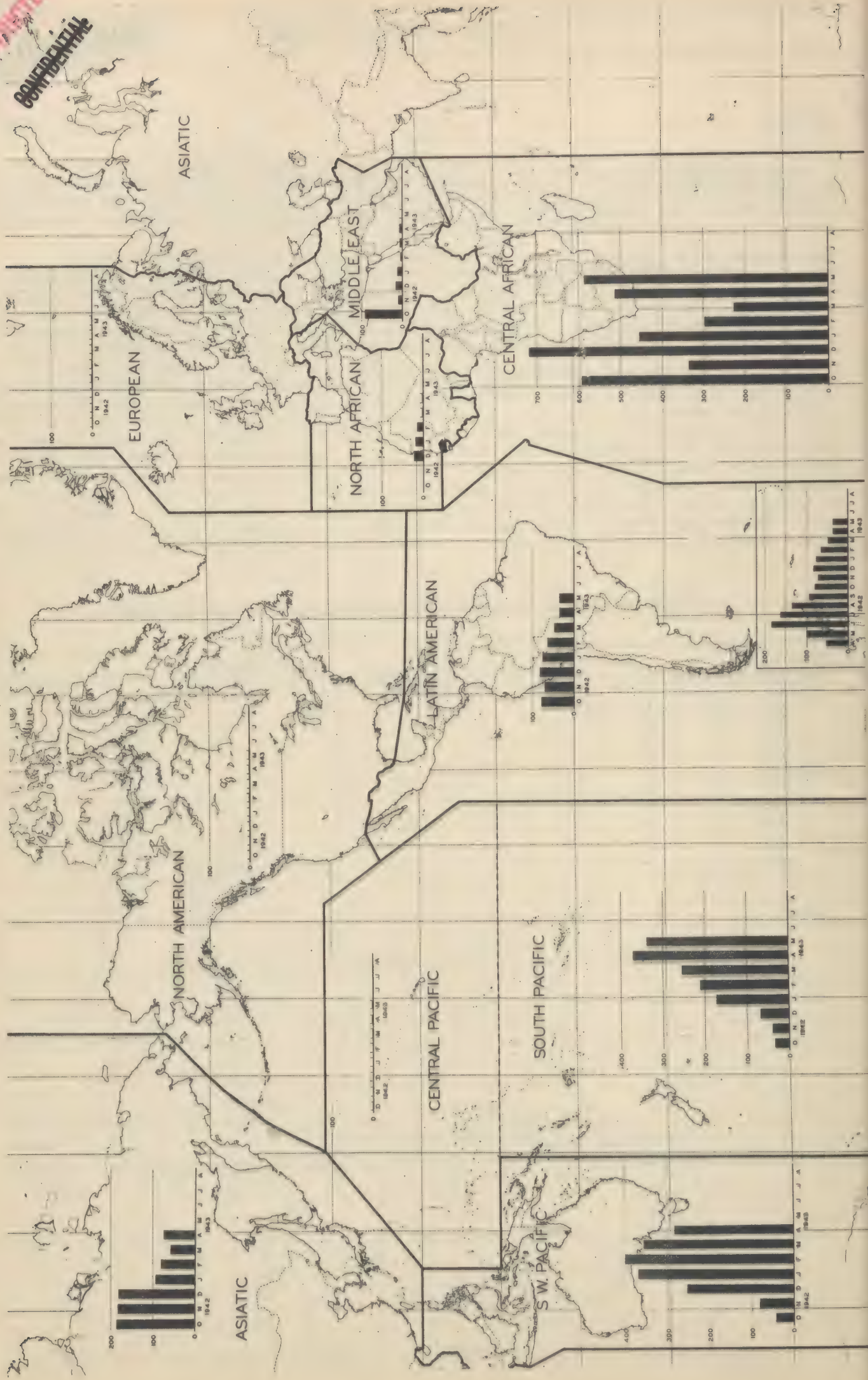
DENGUE, ADMISSIONS PER THOUSAND MEN PER YEAR





MALARIA, ADMISSIONS PER THOUSAND MEN PER YEAR

REF ID: A66547  
CONFIDENTIAL





# DISEASE AND INJURY

RESTRICTED

CONFIDENTIAL

## MALARIA

Malaria may well prove to be the chief medical problem U. S. Army troops will have to face in World War II, and a strategic and tactical problem of considerable magnitude. Already it has established itself as a major cause of admission and noneffectiveness in the South and Southwest Pacific, and it is endemic in many areas of great military importance, including the Mediterranean.

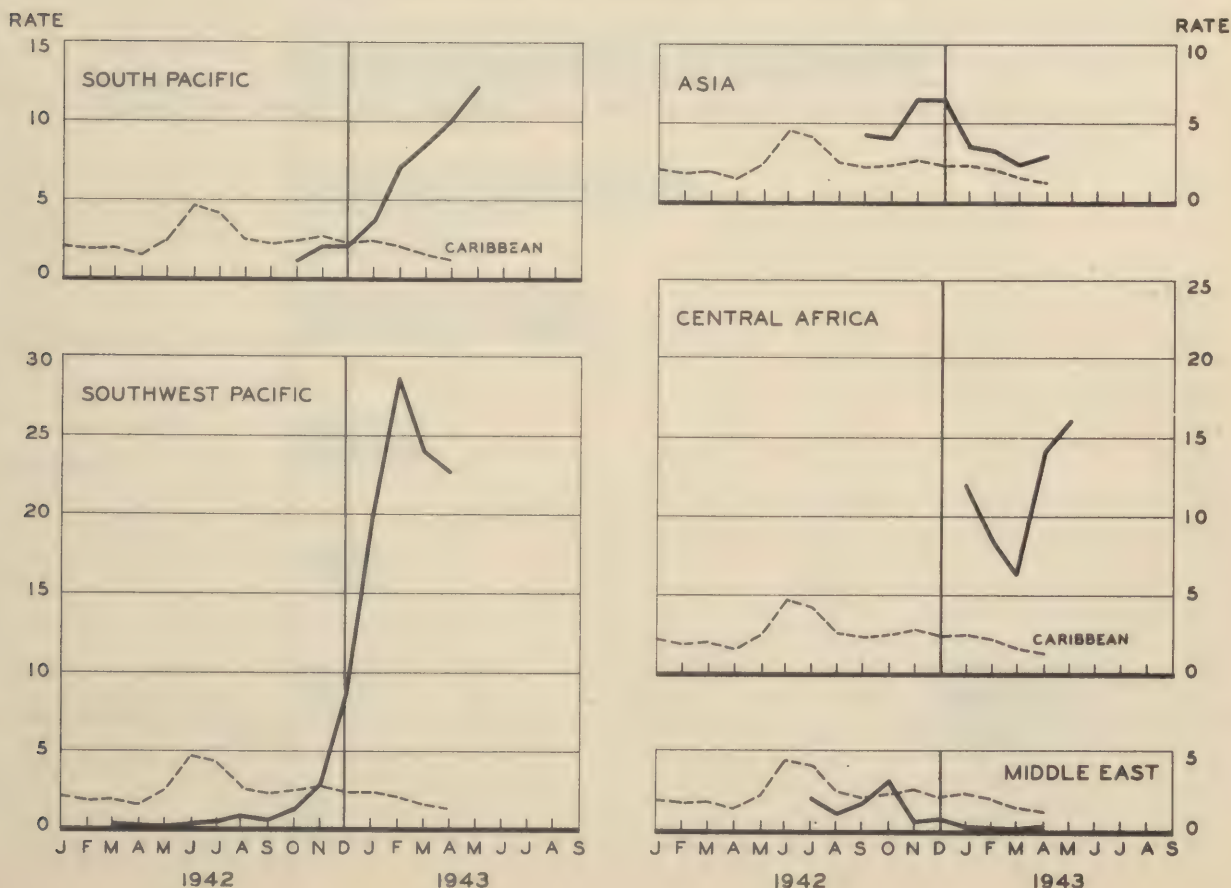
The distribution of malaria as experienced thus far by U. S. Army forces abroad is shown on the accompanying map with theater and section subdivisions. The set of bars for each theater or section gives the admission rates from October 1942 to date, except for the Latin American Theater, for which a longer experience is detailed in a second panel at the bottom of the map. The vertical scale is the same in each panel. The extremely low rates for Hawaii, the North American Theater, and the European Theater do not show up on the scale employed.

In one very real sense the map is misleading, for it fails to underscore the problem in the Mediterranean region. Malaria is endemic there and failure to bring it under control might well threaten the success of military operations. Similarly, when the Asiatic Theater becomes more active, the success of the anti-malarial program will have great bearing on the outcome of the campaign.

In view of the average number of days lost per admission, high incidence rates for malaria produce high noneffective rates. In the Southwest Pacific they reached 29 per thousand strength per day, or about 3 percent, during February. The chart below gives the average daily noneffective rates from this cause in the more malarious areas. A considerable portion of the noneffective rate derives from the frequency of relapse on the part of patients treated for malaria. It has been estimated that roughly 40 percent of the first admissions have at least one relapse. It is partly because relapsing malaria is so important that, once a division has become badly infected with malaria, it may remain knocked out for months.

## NONEFFECTIVE RATES FROM MALARIA, OVERSEAS COMMANDS

NONEFFECTIVES PER THOUSAND MEN PER DAY





RESTRICTED

SECRET

## DISEASE AND INJURY

### MALARIA IN THE SOUTH AND SOUTHWEST PACIFIC

Malaria as a cause of noneffectiveness among American troops in the South and Southwest Pacific is of such serious import that the following brief summary is given for the information of officers who may be concerned with supply, training, and other activities which have a bearing upon the control of the disease.

Four divisions, the First and Second Marine Divisions, the Thirty-second Infantry Division, and the Americal Division, are now non-effective four to six months after withdrawal from combat areas, the direct result of malaria. The Forty-first Division, now in New Guinea, is threatened with a similar fate.

Approximately thirty percent of all hospital admissions among American Army troops in the Southwest Pacific Area between 3 October 1942 and 3 April 1943, were caused by malaria. Following combat service on Guadalcanal, the First Marine Division was transferred to Melbourne, a nonmalarious area. Among its average strength of approximately 17,000 there were 10,416 hospital admissions for malaria between the date of transfer and 22 May 1943, and on the latter date 1,167 were under hospital treatment for the disease. These cases represent recurrences and relapses of infections acquired on Guadalcanal. Similarly, more than forty percent of the Second Marine Division have had malaria in New Zealand since leaving Guadalcanal. Twelve weeks after reaching Wellington it had 543 cases of relapsing malaria in the hospital. During twelve weeks in Fiji, after withdrawal from Guadalcanal, the Americal Division had 5,125 admissions for the disease. The experience of the Thirty-second Division while resting in northern Australia has been similar. Recent reports indicate that the strength of the XIV Corps has been reduced by about 30,000 man-days per month because of malaria. In addition, through the evacuation of malaria patients it has lost the equivalent of an entire infantry battalion each month.

In the past only low priorities were set on the movement of the supplies and personnel essential to the effective prosecution of an anti-malaria program, but this situation is now largely remedied. The individual soldier, too, has not until recently been imbued with the importance of taking individual precautions. Atabrine and quinine are useful only as suppressive measures; they do not prevent infection but merely prolong the period during which the infected individual may remain effective.



RESTRICTED

CONFIDENTIAL

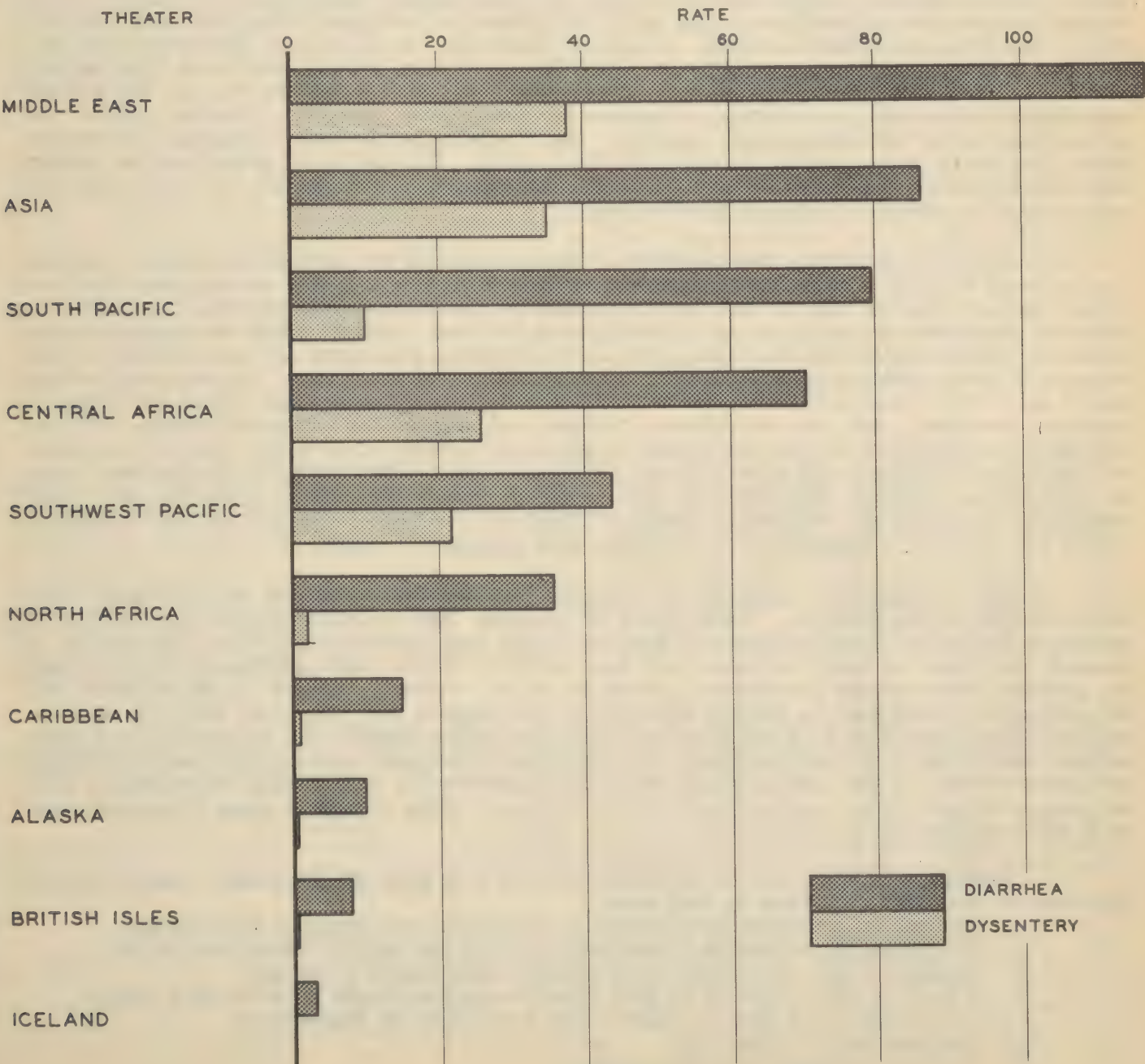
DISEASE AND INJURY

DIARRHEA AND DYSENTERY

Despite their potential danger to military operations the diarrheas and dysenteries can be controlled by suitable sanitary measures. The degree of control which can be attained, however, varies with the environmental and tactical situation. Susceptability to these diseases is general, and the presence of infected carriers among the civilian or military population complicates the problem of sanitary control. High rates of incidence demonstrate a lack of rigorous sanitary control, but combat activity may interfere with effective sanitation.

The chart below compares various overseas commands from the standpoint of admission rates for diarrhea and dysentery during April, 1943. The Middle East, Asia, South Pacific, and Central Africa continue to be problem areas from this standpoint. Bacillary and amebic dysentery are especially common in tropical and subtropical regions. They are more serious but less prevalent than the diarrheas. Their incidence has been especially high in the Middle East, Asia, Central Africa, and the Southwest Pacific.

DIARRHEA AND DYSENTERY, ADMISSIONS PER THOUSAND MEN PER YEAR  
OVERSEAS COMMANDS - APRIL





RESTRICTED

**CONFIDENTIAL**

## DISEASE AND INJURY

### NEUROPSYCHIATRIC DISEASE

Dimensions Of The Problem. Evidence is beginning to accumulate which suggests that neuropsychiatric disease may in this war, as in the last, constitute a problem of serious magnitude, especially for troops in combat areas. The available statistical information is both preliminary and fragmentary, but it is supported by the comments of medical officers in the field. For example when the Buna-Gona campaign was in full swing, the admission rate was above 60 admissions per thousand men per year for the entire Southwest Pacific Theater. Assuming no change in the rate of admission among troops on the continent, the forces in New Guinea must have experienced rates of 90 to 120 during December and January. Again, 16.5 percent of the total casualties sustained by an entire Army Corps in the recent North African fighting were classified as neuropsychiatric. Reports indicate that the admission rate may have been in excess of 150 admissions per 1,000 men per year for a brief period. During World War I, the highest average monthly rate for the A.E.F. was 52 admissions per thousand men per year. Average rates of 210 for divisions on the battle-line, and 140 for all combat divisions, have been reported for the period June through October 1918.

Limitations Of The Screening Process. Great faith has been placed in the screening process and the higher rejection rate of 6 to 8 percent suggests more careful selection than was exercised during the previous mobilization, when only 2 percent were rejected on neuropsychiatric grounds. It has been argued that most potential psychiatric casualties could be eliminated at induction and the entire problem solved thereby. The basic premise of the argument, that psychiatric disorders occur only in "predisposed" individuals, is untrue. Anyone may have a nervous breakdown. The chief difference is that some individuals are "stronger" in that they can endure a strain of greater magnitude, or of longer duration, than others, but everyone has his breaking point. Individuals who are already suffering from psychiatric disorders are readily recognized and screened out. Similarly, the few who are perhaps most likely to develop psychiatric disorders can usually be detected. However, these two groups constitute but the extreme minority. Their separation is both necessary and practicable, but still only a partial solution to the problem. For the large group ranging between the already frankly psychotic or psychoneurotic and the so-called "normal", the screening process cannot be expected to function effectively.

Factors Determining Mental Health. Important as is the initial psychiatric screening, it does nothing to prevent psychiatric illness among men already in the Army, and one cannot presume that a man is safe merely because he has passed a psychiatric examination. Although psychiatry is still in its infancy, much has been learned about the causes of psychiatric disorders since the last war. The military factors involved are more subject to the control of line officers than of medical officers at the present time. It has been learned that a man's relationship with his fellow soldiers and his superiors may cause or prevent a nervous breakdown. Not only do climate, fatigue, and hunger play important roles, but disciplinary measures, leaves and furloughs, promotions, letters from home, type of training, and job classification, all have a direct influence upon mental health. Furthermore, there is considerable evidence that ideology may be of the utmost importance; a man who has a good reason for fighting and who really wants to fight is less apt to have a nervous breakdown than a man who has no reason for fighting and does not want to fight.

The average U. S. soldier is probably not too well prepared by acceptance and understanding of his mission. Twenty years of cynicism and isolationism have done little to provide a basis for understanding the meaning of the vast conflict in which the country is engaged, and there is some evidence that many soldiers do not have sufficient will to fight to protect them against psychiatric breakdown under stress. The results of attitude and opinion surveys conducted by Special Services do not suggest that the great majority of U. S. soldiers have a state of mind which offers them protection against the deprivation and traumatism associated with their service. The comments of surgeons on duty overseas are replete with observations on the lowered state of morale engendered by unfavorable environmental situations, although there is no evidence that the general state of morale among overseas forces as a whole is poor.

Neuropsychiatrists in the Southwest Pacific Area give the following causes for the psychiatric disorders occurring in that area:

- a. Separation from family, friends, loved objects and familiar surroundings
- b. Difficulty of selecting situations to which one who is limited can adapt
- c. Absence of the feeling of being wanted, appreciated or needed
- d. A feeling that there is an Army ritualism which abhors an error or a simple deviation more than it appreciates initiative or originality
- e. The monotony of camp life
- f. Repeated bombings with near misses



## DISEASE AND INJURY

CONFIDENTIAL

NEUROPSYCHIATRIC DISEASE (Continued)

- g. Feeling responsible in some way for a friend's death
- h. being "pinned down" by the enemy for several hours
- i. A feeling that the officers don't know their business
- j. Seeing others sacrificed on failing missions
- k. Absence of a predictable policy for the periodic relief of those in combat areas
- l. Current difficulties at home

In commenting on the neuropsychiatric casualties in North Africa a report stated "These totals are made up from units which were in the line continuously for four months without relief. Thus, the exhaustion factor was exceptionally important, and these figures may not hold when troops in the battle line can look forward confidently to relief periods after a tour at the front. It became quite apparent to them that, in the light of their experiences, all members of the unit would be eventually casualties, unless relief from battle duty were afforded them. None was obtained. I suspect the abandonment of hope of temporary relief and removal of danger may have added significantly to our psychiatric casualties. About one-half of the non-wounded soldiers evacuated from the front are neuropsychiatric. The psychiatrists with the Corps are convinced that fatigue hastens the crack-up in men both with and without previous history of neurosis. The common clinical patterns of the battle casualty are a severe anxiety state and a major hysteria with all imaginable manifestations (tremors, deafness, mutism, blindness, paralysis, etc.). In general hospitals in North Africa are many lightly wounded who are trained men, perfectly capable of fighting again, but who feel that they've done their bit and, by fair means or foul, will see to it that they don't return to their units. This is being called the 'Z. I. complex'. When the wound is healed the back begins to hurt, etc."

Prevention of Breakdown. Under present circumstances the prevention of psychiatric casualties is a matter of controlling innumerable factors which determine the everyday life of the soldier. The main effort must be made by line officers. The present distribution of psychiatric medical officers is such that they are unable to do preventive psychiatry on any scale. Less than 5 percent of the 1,200 psychiatrists in the Medical Corps are on duty where preventive work is possible, so urgent is the need for their services in hospitals where they must care for men who have already broken down. It is also believed that many neuropsychiatrists in the Army, however competent in diagnosis and treatment, have had little training in the more specialized field of preventive psychiatry. This fact simply reflects the status of the profession in civilian life. Before a greater proportion of psychiatrists could be detached from hospital assignments and placed where they could develop a preventive program, there would have to be more evidence than is now available that such a step would decrease neuropsychiatric admissions.

During the past year several steps have been taken in the direction of preventive psychiatry. The first of these is the establishment of mental hygiene clinics in replacement training centers. These are designed to act not only as a second screen for "predisposed" individuals but also to assist inductees in their adjustment to Army life. By working closely with line officers, both through informal discussions and lectures on problems of discipline, by talks to troops on homesickness and on fear, by writing columns in camp newspapers, by reviewing A.W.O.L. and court-martial cases, and by working with individuals, psychiatrists were so successful in improving mental health in several of the replacement training centers that in the spring of this year authorization was granted for their establishment at all replacement training centers.

Another step has been the establishment of the School of Military Neuropsychiatry at Lawson General Hospital. Their training here should better equip psychiatric medical officers for any preventive work which their assignments will permit.

The newly established liaison between the Neuropsychiatry Branch, S.G.O., and the Special Services Division, A.S.F., is a further move in the direction of prevention. Cooperative studies are under way to determine the major points at which a preventive program might be directed.

If men enter the Army only because they were compelled to do so and then crack because they do not want to fight, they can be protected only by a fuller realization of the fundamental issues involved in the war. This understanding cannot be confined to the level of abstraction if it is to be effective. It must extend to the level of concrete, everyday experience and must permit them to take a positive stand on real issues. It remains to be seen whether the judicious use of informational media can create the toughness of mind required to withstand separation from home, regimentation, and danger of death.



RESTRICTED

CONFIDENTIAL

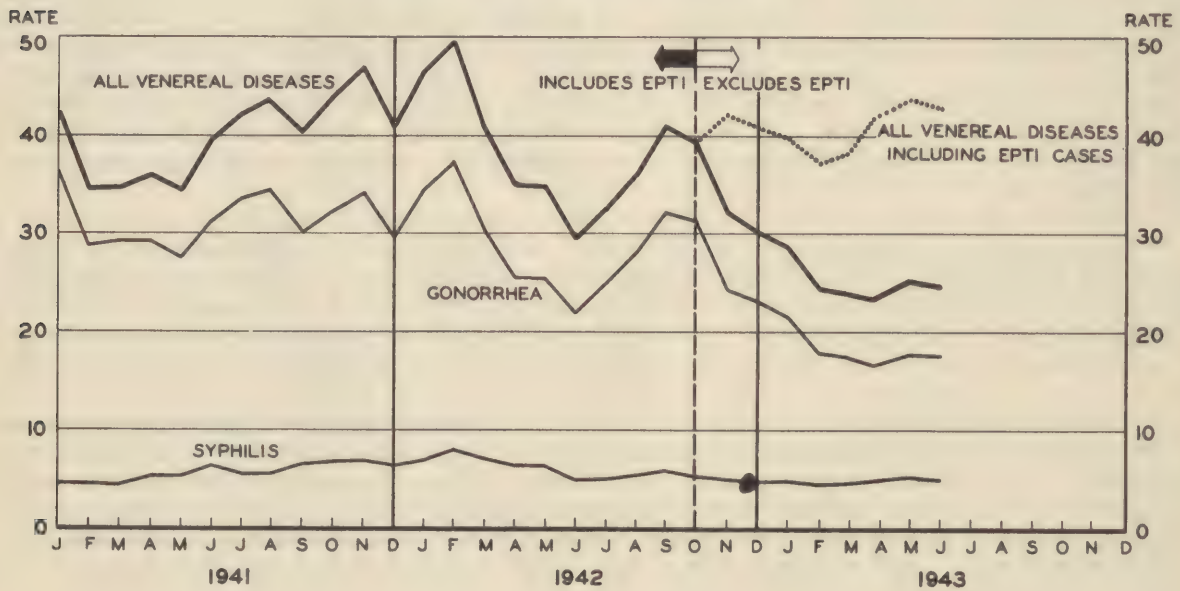
DISEASE AND INJURY

VENEREAL DISEASE, CONTINENTAL U. S.

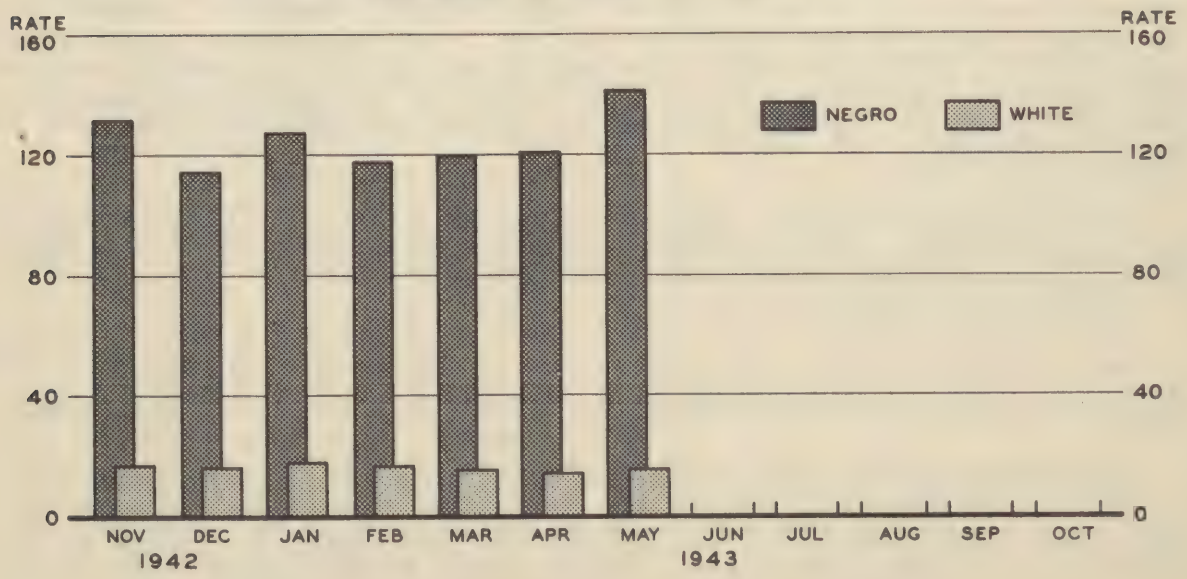
With the induction of increasing numbers of infected men for treatment in the Army, the uncorrected admission rate (shown as a dotted extension of the top line of the first chart below) continues at a high level. The preliminary rate for June is 43 admissions per thousand men per year, a decline of one point from the May rate. The corrected rates, which exclude EPTI cases (exposed prior to induction) are 4.9 for syphilis, 17.8 for gonorrhea and 24.8 for all diseases.

The chart at the bottom of the page compares the incidence of all venereal diseases among white and Negro troops in recent months, EPTI admissions having been excluded. The general level of rates for Negroes is about eight times that for whites. Comprising approximately 8 percent of total Army strength Negroes contribute about 45 percent of the admissions for venereal disease.

VENEREAL DISEASE ADMISSIONS PER THOUSAND MEN PER YEAR  
TOTAL ARMY IN THE CONTINENTAL U. S.



EXCLUDING EPTI AND BY COLOR





RESTRICTED

CONFIDENTIAL

# DISEASE AND INJURY

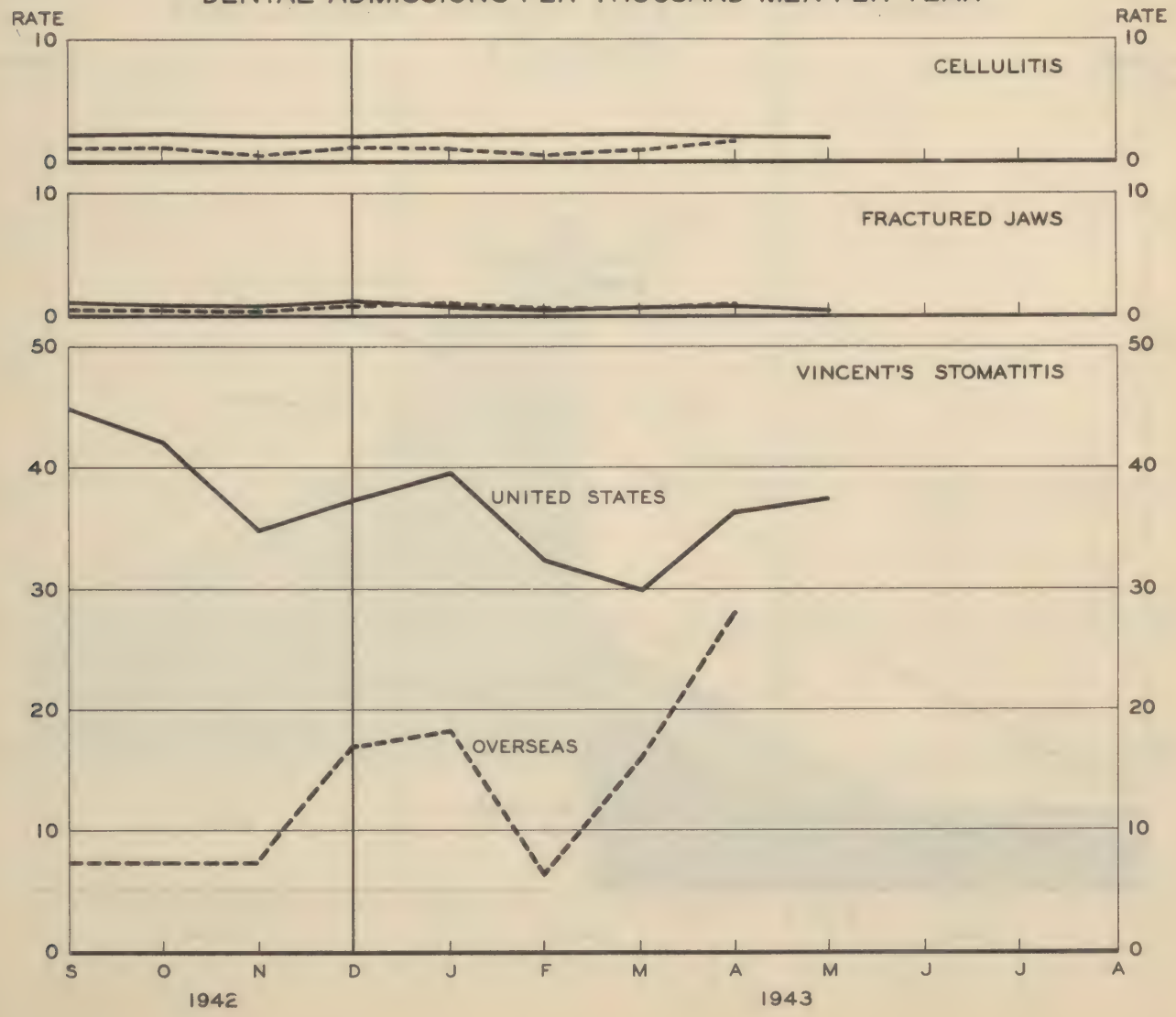
## DENTAL INFECTION AND INJURY

The incidence of cellulitis, the result of dental infection, has been remarkably low during 1942 and the first five months of 1943. The rate for forces overseas has been roughly half that for the Continental U. S., but the rates for April are much closer together than heretofore. Their preparation for overseas duty, and the enforcement of high dental standards among troops destined for overseas duty, have tended to minimize the incidence of dental infection among overseas troops. However, higher rates of admission for this cause may be anticipated among troops in active theaters. The first chart below traces the recent experience with cellulitis.

Jaw-fracture, the incidence of which is also shown on the chart below, has been rather less than anticipated for an increasingly mechanized Army. The present rates for both overseas and Continental U. S. forces continue at a level lower than those reported for 1940 and 1941. Increased combat activity, again, will probably result in an increased rate of admission for this cause. Other injuries to the face, with some attendant infection, may also be expected to increase under these conditions but effective dental surgery and treatment will minimize their consequence.

Vincent's Stomatitis, or "trench mouth", is a potentially epidemic and disabling disease which has thusfar been kept at a low level by good oral hygiene and nutrition. Outside the U. S., and especially in active theaters, the continued maintenance of good oral hygiene and nutritional regime becomes progressively difficult. In consequence, the rates of admission for Vincent's Stomatitis, as well as for other oral infections, may be expected to increase. The bottom panel of the chart presents the recent rates for U. S. Army forces overseas and in the Continental U. S.

DENTAL ADMISSIONS PER THOUSAND MEN PER YEAR





RESTRICTED  
CONFIDENTIAL

## HOSPITALIZATION

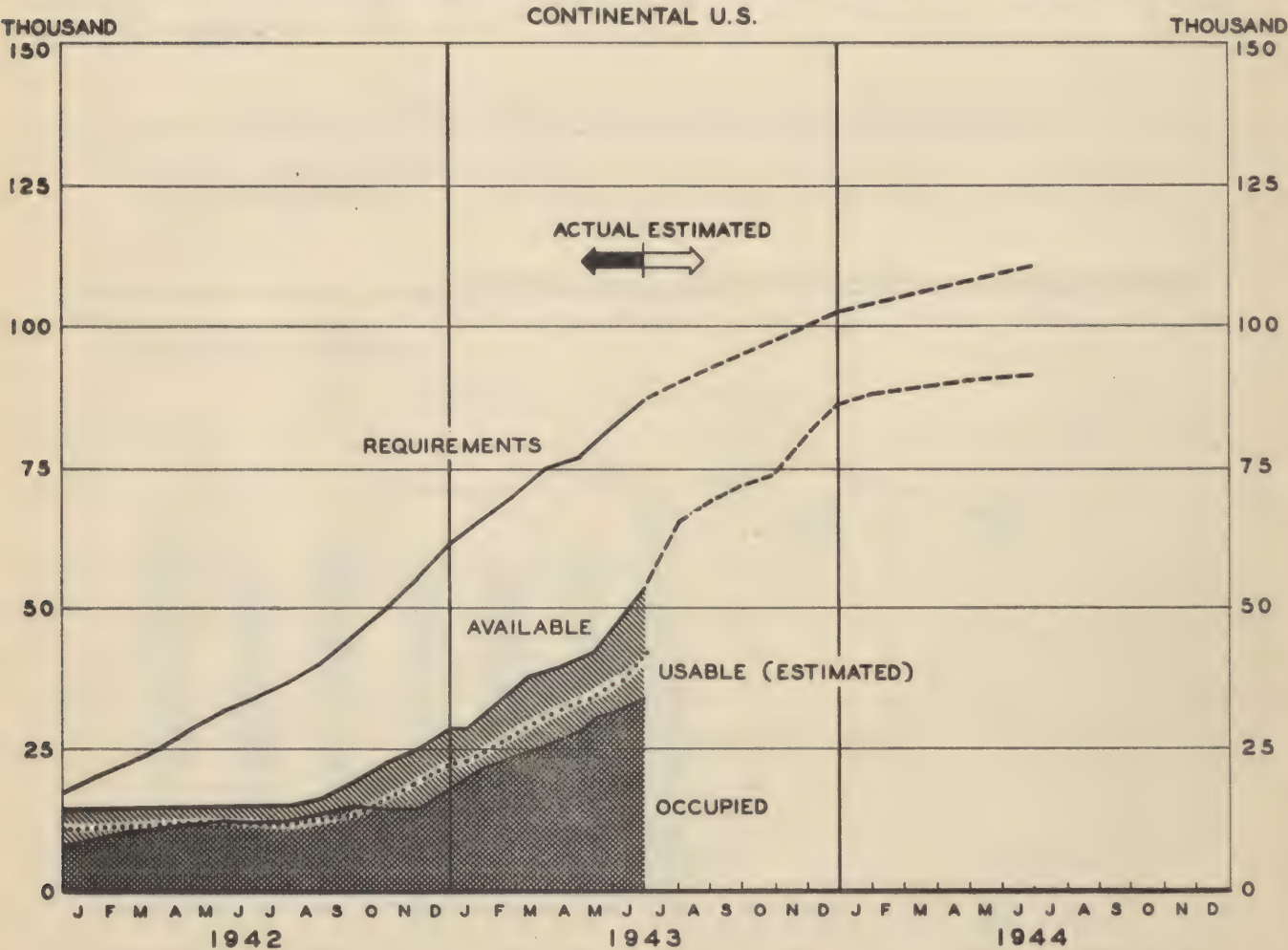
### UTILIZATION OF AND REQUIREMENTS FOR BEDS IN NAMED GENERAL HOSPITALS

The requirements for beds in general hospitals are calculated at one percent of all troops in the Continental U. S. plus 1.7 percent of all troops overseas. The estimated needs for the period, January, 1942, to June, 1944, are shown in the chart below. The line of projected availability reflects construction in progress, and is revised each month as new sites are selected and construction begun. Attainment of the present schedule would provide about 86,000 beds by the end of December, about 86 percent of the requirement for that date.

Since the Army enjoyed excellent health during 1942, and since overseas action requiring evacuation has become appreciable only recently, no penalty attached to the failure to meet the calculated requirements. The total number of occupied beds is shown by the bottom solid line. The broken line close to it represents the average limit of normal utilization without overcrowding, since at any one time about 20 percent of the available normal beds cannot be used because of the importance of maintaining specialized wards. When more than 80 percent of the normal beds are occupied, it indicates that in the average hospital emergency beds have been crowded into corridors and solaria, or that patients have been placed in expansion barracks.

The number of normal beds available in named general hospitals increased from 45,600 on 29 May to 53,800 on 26 June. On the latter date about 63 percent of the normal beds were occupied in contrast to the 69 percent reported for 29 May.

### REQUIRED AND AVAILABLE GENERAL HOSPITAL BEDS





RESTRICTED

CONFIDENTIAL

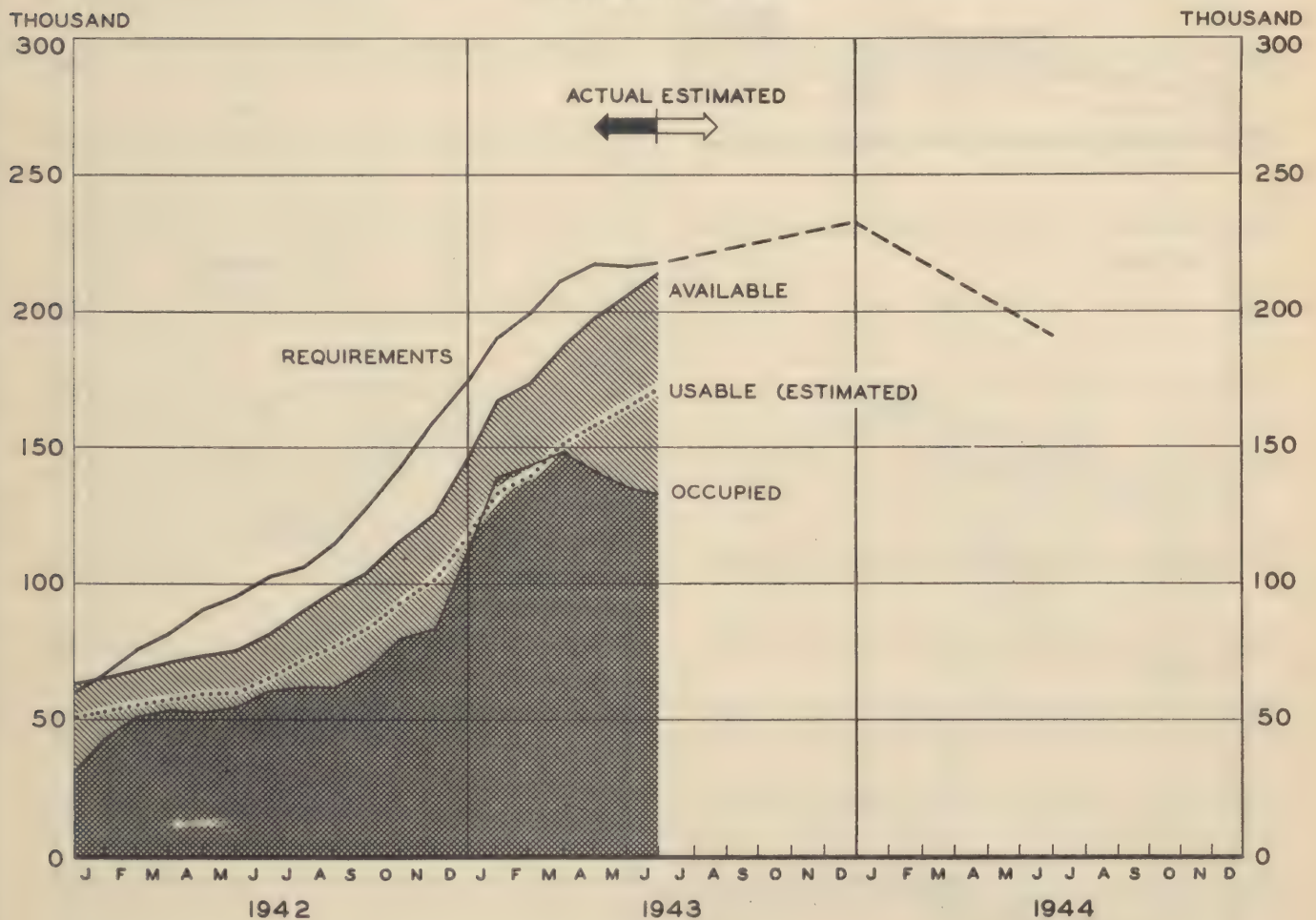
# HOSPITALIZATION

## UTILIZATION OF AND REQUIREMENTS FOR BEDS IN STATION HOSPITALS

The requirements for beds in station hospitals in the Continental U. S. are calculated on the basis of 4 percent of the strength of the troops to be stationed here. The uppermost line on the chart below gives the estimated need for beds in station hospitals from January, 1942, to June, 1944. The other lines show the total number of occupied beds, the number of available normal beds, and the estimated number of usable normal beds (80% of the number of available normal beds), to indicate average utilization without overcrowding.

With the increasing strength in certain maneuver areas, especially those in Tennessee and California, it becomes important to exclude from the totals shown for available normal beds in station hospitals the numbers reported from these areas, which are chiefly in numbered units. The correction amounts to about 5,000 beds for the month of June. On this basis the number of available beds in station hospitals was about 215,000 on 26 June, an increase of about 8,000 from the total reported for 29 May and almost 100 percent of the estimated requirement for 1 July 1943. The percentage utilization on 26 June was 62, slightly lower than the 65 percent reported for 29 May.

REQUIRED AND AVAILABLE STATION HOSPITAL BEDS  
CONTINENTAL U. S.





RESTRICTED  
**CONFIDENTIAL**

# HOSPITALIZATION

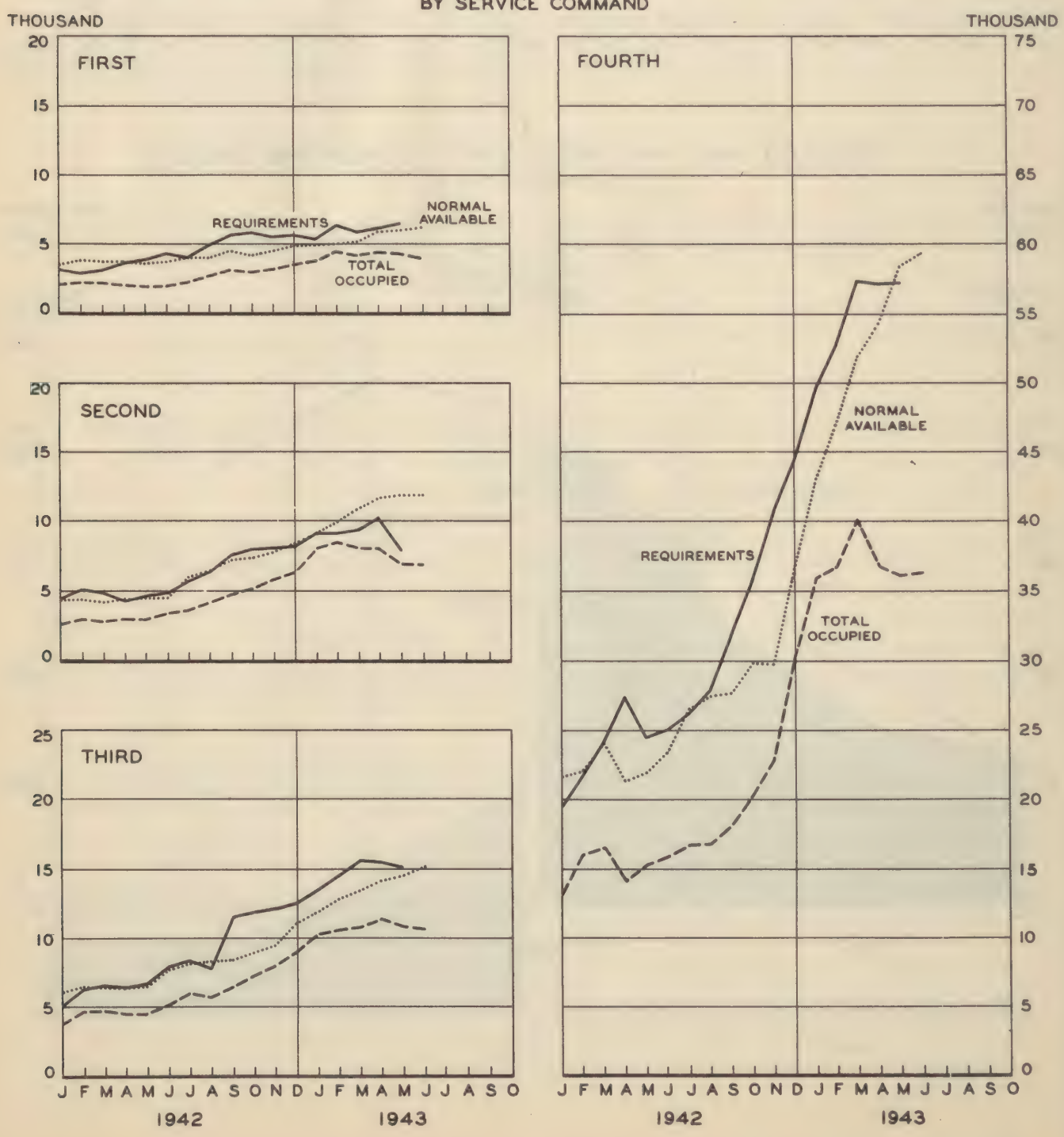
## STATION HOSPITAL FACILITIES, SERVICE COMMANDS

The charts which follow detail the relationship between the requirements for and the availability and utilization of station hospital beds for each service command. The requirements have been computed as 4 percent of reported strength, with the exclusion of troops in staging areas and in the California maneuver area. The construction program was instituted on the basis of projected strength figures, whereas the requirements shown in the chart are based on the actual strength for any date.

During the past year, calculated requirements have at times been met and even exceeded in all service commands except the ninth, but on 1 June 1943 the number of available normal beds exceeded the requirement only in the second, fourth, sixth, and seventh service commands. The recent seasonal decline in bed occupancy, most marked in the fourth and eighth service commands, has greatly eased the pressure upon station hospital facilities.

### REQUIRED AND AVAILABLE BEDS IN STATION HOSPITALS

#### BY SERVICE COMMAND





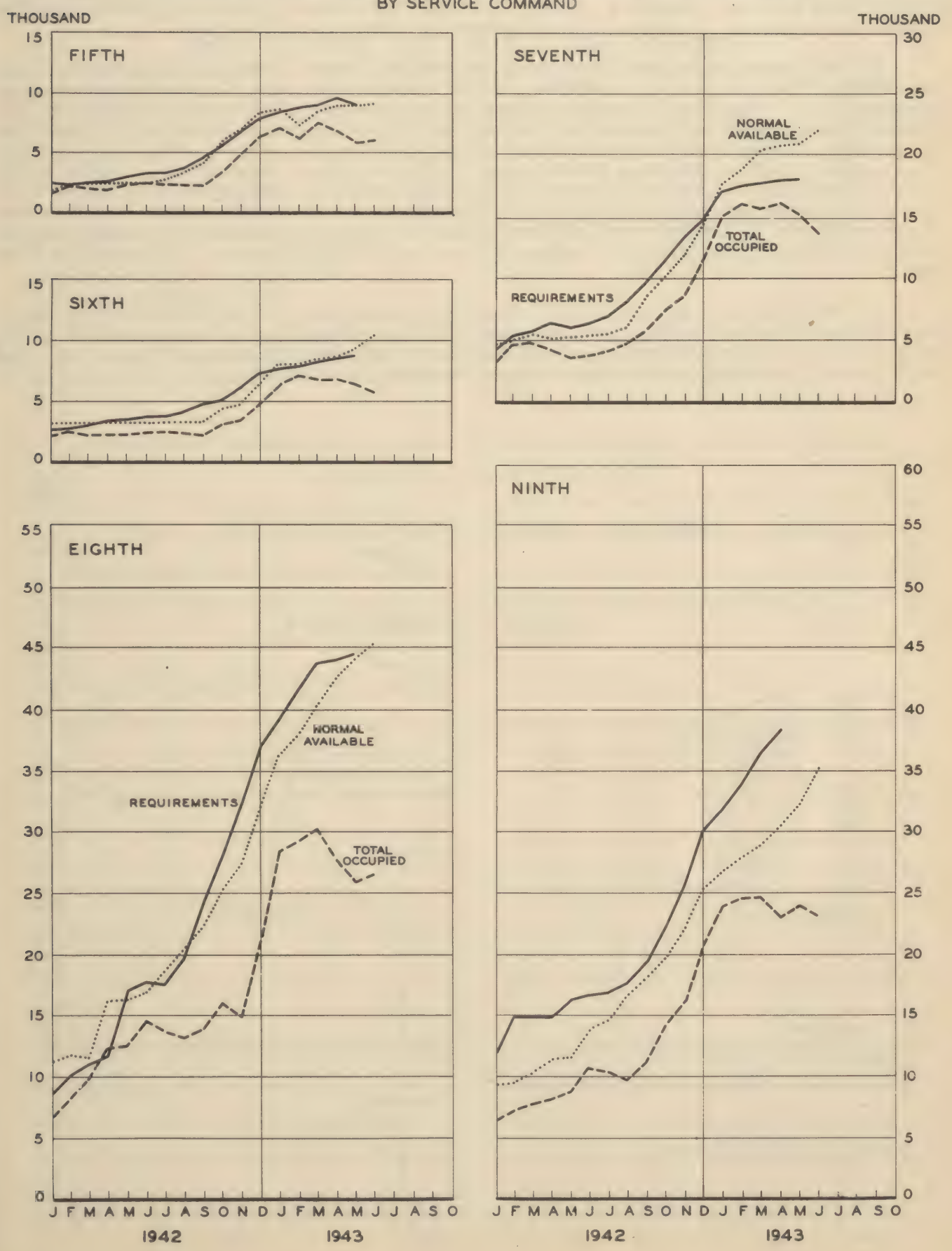
RESTRICTED

CONFIDENTIAL

# HOSPITALIZATION

STATION HOSPITAL FACILITIES, SERVICE COMMANDS (Continued)

REQUIRED AND AVAILABLE BEDS IN STATION HOSPITALS  
BY SERVICE COMMAND





**HOSPITALIZATION**

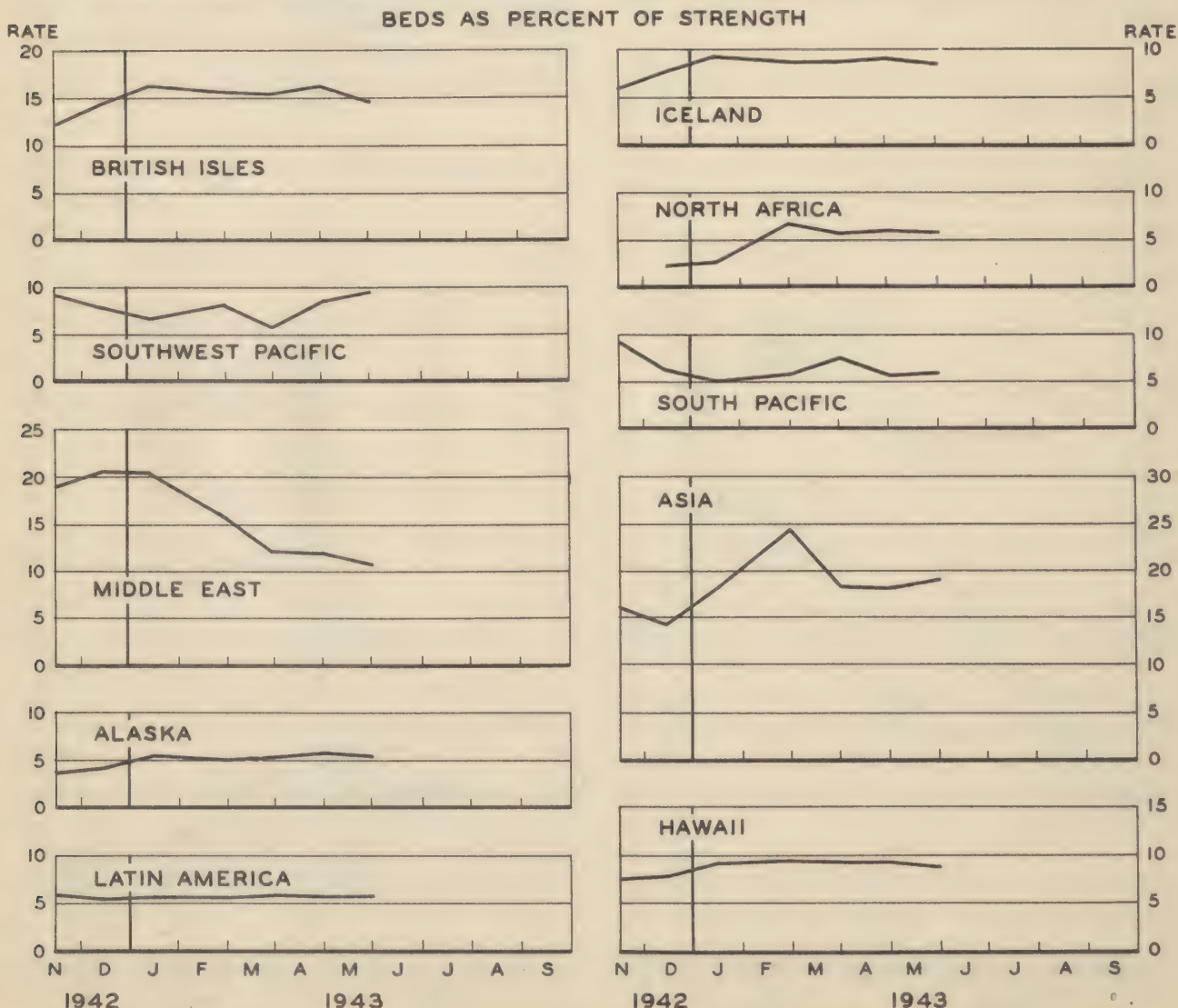
**PROVISION OF FIXED HOSPITAL BEDS OVERSEAS**

The need for fixed hospital facilities overseas is quite variable but generally much higher than the 5 percent of strength now provided in the Continental U. S. for station plus general hospitals. The location of the command, the presence of special disease problems such as malaria, the degree of combat activity, and evacuation facilities all affect the need for beds in fixed hospitals (field, station, and general) overseas. The more active theaters are expected to require up to 15 percent of strength in fixed beds.

The charts below show for various theaters and lesser commands the number of fixed beds shipped from the U. S. or otherwise provided, each number being shown as a percentage of strength. The curves give an estimated upper limit on the number available in each area, for all the hospitals have not necessarily been set up. Known shipping losses are excluded from the figures. In the British Isles and the Asiatic Theater the relative amount of fixed hospitalization provided has been fairly high, 15 to 20 percent of strength. In the Middle East, Iceland, Hawaii, and the Southwest Pacific the number of beds provided was close to 10 percent of strength on 1 June 1943. Bed utilization in the Southwest Pacific has been very intensive because of the incidence of disease and the necessity for hospitalizing Australian and U. S. Marine Corps personnel. Present plans call for 15 percent of strength in fixed beds.

The situation appears to be relatively unfavorable in the South Pacific and in North Africa. Operations in the former area have been based on a short evacuation policy which has reduced the bed requirement. The nature of operations in North Africa is such that the 6 percent provided for that theater cannot be expected to suffice.

**FIXED HOSPITAL BEDS PROVIDED IN VARIOUS OVERSEAS COMMANDS**





RESTRICTED

HOSPITALIZATION

CONFIDENTIAL

EVACUATION OF PATIENTS FROM OVERSEAS

Following its rapid rise during April, the number of patients evacuated from overseas has remained fairly constant for the past two months. During June, according to preliminary reports, about 5,000 patients were received, although the total overseas strength increased appreciably. The following table shows the monthly totals received, in both simple and cumulative form.

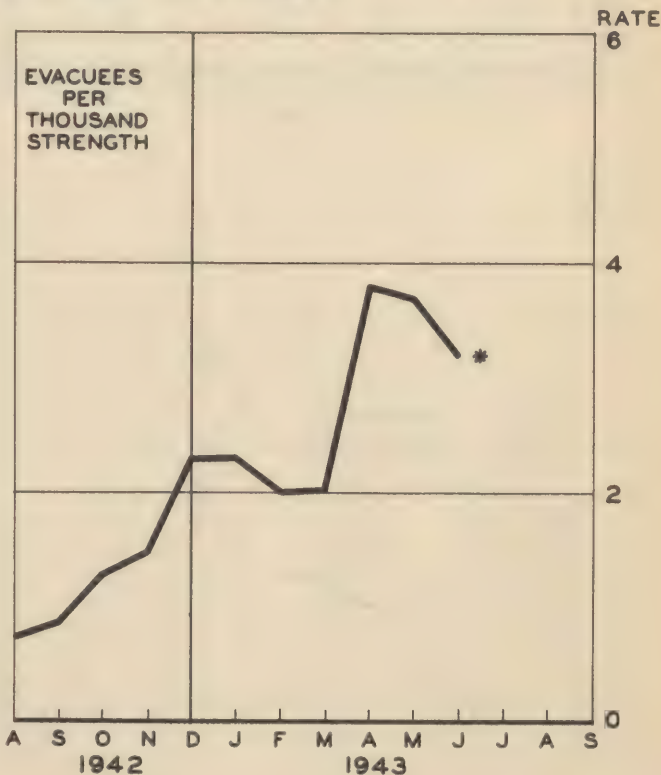
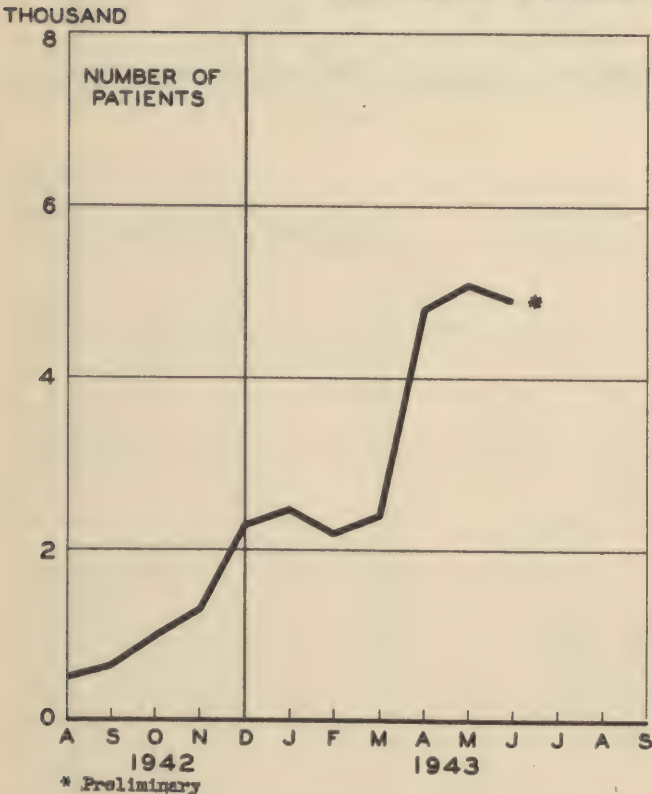
NUMBER OF PATIENTS ARRIVING IN U. S. PORTS FROM OVERSEAS

Month 1942	Number	Cumulative Total	Month 1943	Number	Cumulative Total
Aug	515	515	Jan	2,470	8,231
Sep	663	1,178	Feb	2,208	10,439
Oct	1,019	2,197	Mar	2,405	12,844
Nov	1,311	3,508	Apr	4,819	17,663
Dec	2,253	5,761	May	5,087	22,750
			Jun *	4,905	27,655

\* Preliminary only.

The charts below show the monthly totals in both absolute and rate form. During April the rate of evacuation was 3.8 evacuees per thousand strength overseas. In May it declined only very slightly to 3.7, and the preliminary rate for June is 3.2.

PATIENTS EVACUATED FROM OVERSEAS





RESTRICTED

CONFIDENTIAL

# MORTALITY

## MORTALITY FROM NONBATTLE CAUSES

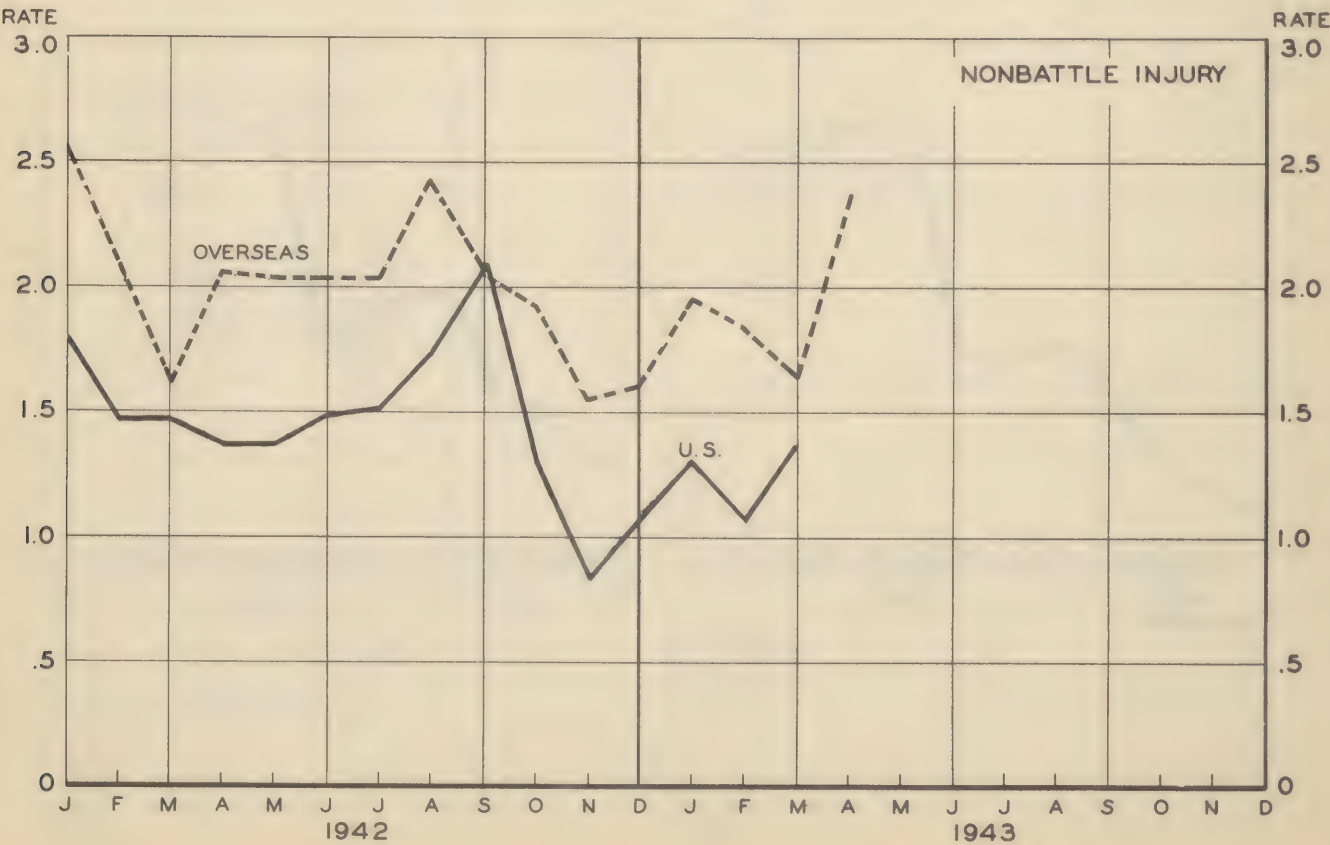
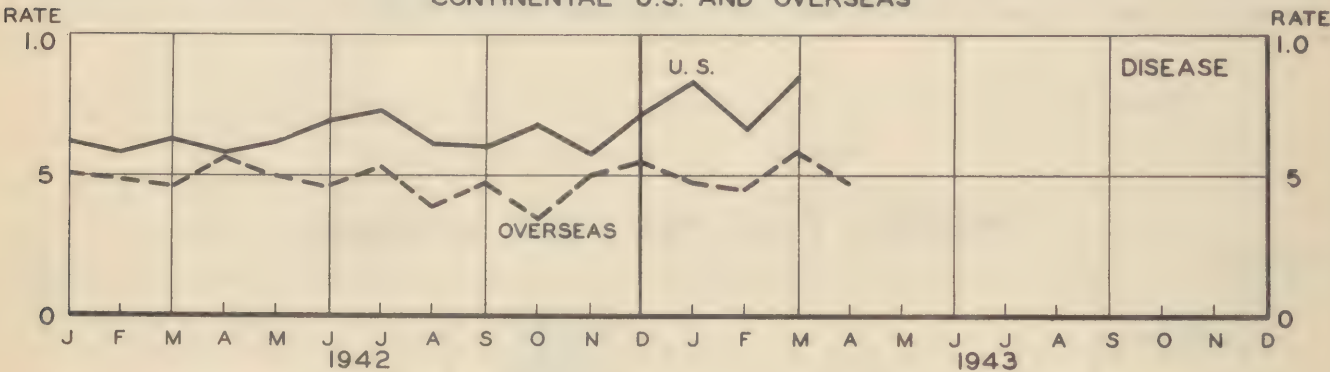
With the availability of death rates for U. S. Army forces overseas (except for the strength of the Philippine Department) it becomes possible to compare nonbattle death rates for troops at home and abroad. The comparison is made in the two charts below, the first of which gives the death rates attributed to disease and the second those attributed to nonbattle injury.

Without a detailed breakdown of deaths by cause it is not possible to identify precisely the reason why the mortality experience of troops overseas should have been more favorable with respect to disease. For every month in the 15 shown, however, this was true. It may reflect in part the physical and age selection of men assigned to overseas duty. The policy of evacuation to the U. S. may also be somewhat responsible, for deaths among evacuated patients are charged to the U. S. in the preliminary statistics used here.

Mortality from nonbattle injuries presents a picture more in accord with expectation. With but one exception, the rate for the overseas forces has exceeded that for the Army in the Continental U. S. Admission rates for nonbattle injury are also higher among overseas forces.

### DEATHS PER THOUSAND MEN PER YEAR, NONBATTLE CAUSES

#### CONTINENTAL U.S. AND OVERSEAS





RESTRICTED

MORTALITY

CONFIDENTIAL

MORTALITY FROM BATTLE CAUSES

Because U. S. Army forces overseas were only lightly or sporadically engaged with the enemy until the most recent European action, the death rates from battle causes (killed in action and died of wounds) have been generally lower than those from nonbattle injury and disease. The notable exceptions in the medical statistics recorded to date, which are only preliminary and may be incomplete, are those for the South Pacific from November through January, and that for the Southwest Pacific during December. For the forces in New Guinea the rate for December may have been as much as or more than twice that of 45 for the theater as a whole. The available information is tabled below for reference. During 1918 the A.E.F. lost men at the average rate of 48 per thousand strength per year, 35 killed in action and 13 dying of battle injuries. The ratio of men dying of wounds to those killed in action has been much lower in World War II than the 1 to 2.7 which prevailed then, but good estimates are not yet available.

DEATHS PER THOUSAND MEN PER YEAR FROM BATTLE AND NONBATTLE CAUSES  
OVERSEAS COMMANDS

Month and Year	British Isles		North Africa		South Pacific		Southwest Pacific		Asia	
	Battle	Non-Battle	Battle	Non-Battle	Battle	Non-Battle	Battle	Non-Battle	Battle	Non-Battle
1942										
Sep	.16	1.90	-	-	-	-	0	3.73	.98	4.90
Oct	.72	2.15	-	-	0	3.26	.41	2.74	.62	3.70
Nov	1.17	1.98	-	-	15.1	1.75	.12	3.33	2.29	1.53
Dec	1.71	2.04	2.44	1.27	18.4	1.80	45.31	2.15	.76	2.28
1943										
Jan	2.30	2.48	1.62	3.23	37.8	1.89	2.42	2.71	1.12	7.29
Feb	.12	1.88	5.68	2.13	10.2	1.98	3.38	3.49	1.33	3.33
Mar	.48	2.04	1.35	1.97	.31	1.63	4.85	3.94	4.65	3.62
Apr	1.80	2.37	2.21	3.62	1.37	2.18	3.67	3.52	3.48	2.44
May	3.32	5.19	-	-	.82	3.01	-	-	-	-



## MISCELLANEOUS

### NUTRITIONAL EVALUATION OF THE FIELD RATION

Under the field ration system of feeding the Army, the system now used for most of the troops in the Continental U. S., the issue of rations is governed by menus prepared at some level of command. The Medical Department continually reviews and analyzes these menus in the discharge of its responsibility for the nutritional adequacy of the ration prescribed for the soldier.

The average quantities of the food prescribed for the Army for three six-month periods, May to October 1941, November 1941 to April 1942, and November 1942 to April 1943, inclusive, are shown in the table below. These averages are for food planned at representative stations in the nine service commands and are weighted according to strength. A master menu is prepared in the Office of The Quartermaster General for the guidance of service commands or lower echelons. For the winter months, the average quantities provided by the master menu are presented for comparison with the actual food prescribed at camps and stations for the same period.

Most Army menus are prepared two months in advance of use, and may undergo many changes associated with fluctuations in market conditions. The food actually consumed by the average soldier may thus deviate considerably from the planned menu. The results of 117 nutritional surveys, in which the actual food consumed in the mess was determined, are presented in the last column of the table.

Only relatively small changes have occurred in the quantities of the classes of food prescribed for the Army during the two years covered by these statistics. The ration as planned is nutritionally adequate, except for riboflavin, which is borderline. The proposed enrichment of flour with riboflavin will provide an additional source of this nutrient. With this exception, the quantities of specific nutrients furnished in the field ration equal or exceed the daily allowances recommended by the National Research Council.

The 117 surveys of food consumed were made during 1941 and 1942. The results of more recent surveys, which will also cover the problem of waste, will be available later. The adequacy of the food consumed will be determined not only by the weight of food supplied but also by the extent of the losses in nutrients which result from improper methods of cooking, serving, and storing of foods. The adequacy of the caloric intake is related to the activity of troops and should be judged only in relation to the activity.

#### FOOD PRESCRIBED AND CONSUMED, ARMY IN THE CONTINENTAL U. S. POUNDS PER MAN PER DAY

FOOD GROUP	PRESCRIBED					CONSUMED
	Army Averages May 1941 Oct. 1941	Army Averages Nov. 1941 Apr. 1942	Master Menu Nov. 1941 Apr. 1942	Army Averages Nov. 1942 Nov. 1943	Master Menu Nov. 1942 Apr. 1943	117 Messes Average Consumed
Meats	.845	.856	.979	.934	.935	.935
Eggs	.178	.151	.127	.156	.142	.145
Milk Products	1.085	1.028	1.109	1.110	1.063	.974
Butter	.093	.091	.090	.081	.079	.091
Fats, other	.085	.079	.067	.073	.062	.075
Grain Products	.737	.662	.714	.666	.636	.578
(Bread)	(.464)	(.390)	(.421)	(.357)	(.328)	(.312)
Legumes	.066	.054	.044	.054	.056	.057
Sugar & Sirups	.340	.301	.296	.262	.249	.263
Vegetables leafy, green or yellow	.420	.440	.471	.450	.514	.314
Tomatoes	.160	.132	.125	.141	.121	.132
Citrus fruits	.210	.190	.151	.275	.342	.229
Potatoes	.635	.697	.787	.665	.629	.650
Vegetables, other	.301	.271	.272	.275	.311	.212
Fruits	.410	.322	.304	.293	.259	.365
Fruits, dried	.034	.033	.038	.034	.028	.017
Calories	4,310	4,050	4,240	4,060	3,920	3,890



# MISCELLANEOUS

RESTRICTED

CONFIDENTIAL

## INDUCTION RATES BY AGE AND COLOR

There have recently been made available by the Selective Service System data on the rejection and induction of selectees classified by age and color, for the period September, 1942, through January, 1943. The charts below give separately for whites and Negroes the induction rate at each age, with a distinction between those accepted for limited service and those accepted for general service. The age-variation is very marked for both whites and Negroes. For whites it runs from about 80 percent at age eighteen to 50 percent at age thirty-eight and continues its decline thereafter. The highest yield for Negroes is about 65 percent at ages twenty-one and twenty-two. At age thirty-eight it is only 31 percent.

For whites the age-variation reflects almost entirely the medical status of the selectees presenting themselves for examination. During December, for example, about 90 percent of the rejections were on medical grounds. For Negroes, on the other hand, only about 70 percent of the rejectees were refused on medical grounds. The proportions rejected by local boards also differed materially during the five-month period, being 21 percent for Negroes and 6.5 percent for whites. Very few Negroes have been accepted for limited service.

### SEPTEMBER 1942 - JANUARY 1943

BY AGE, COLOR, AND TYPE OF SERVICE

